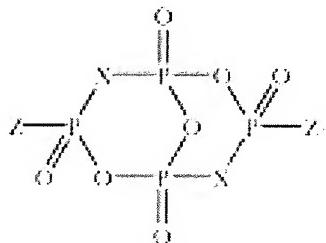


### **Amendments to the Claims**

This listing of claims will replace all prior versions and listing of claims in the application:

#### **Listing of Claims**

1. (Previously Presented) A compound having the following structure:



wherein

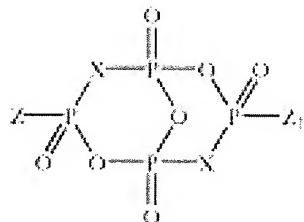
$Z$  and  $Z_1$ , are the same or different and are alkyl, aralkyl, aryl, aminoalkyl, alkyloxy, aralkyloxy, alkylamino, aralkylamino, arylamino, alkylmercaptan, aralkylmercaptan, arylmercaptan, carbohydrate, nucleoside, steroid, or substituted glyceride; and

$X$  is methylene (-CH<sub>2</sub>-), mono- or di-halo methylene.

2. (Original) The compound of claim 1, wherein  $Z$  and  $Z_1$  are carbohydrates and  $X$  is methylene or difluoromethylene.

3. (Original) The compound of claim 1, wherein  $Z$  and  $Z_1$  are nucleosides and  $X$  is methylene or difluoromethylene.

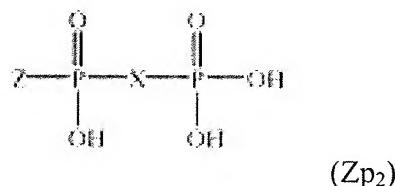
4. (Previously Presented) A method for the preparation of a compound having the following structure:



wherein

Z and Z<sub>1</sub> are the same or different and are alkyl, aralkyl, aryl, aminoalkyl, alkyloxy, aralkyloxy, alkylamino, aralkylamino, arylamino, alkylmercaptan, aralkylmercaptan, arylmercaptan, carbohydrate, nucleoside, steroid, or substituted glyceride; and

X is methylene (-CH<sub>2</sub>-), mono- or di-halo methylene; which method comprises reacting a compound having the following structure:



wherein Z and X are as described, with a dehydrating agent.

5. (Original) The method of claim 4, wherein the dehydrating agent is a carbodiimide.
6. (Original) The method of claim 5, wherein the dehydrating agent is dicyclohexylcarbodiimide or diisopropylcarbodiimide.
7. (Original) The method of claim 4, wherein the starting material which is reacted with the dehydrating agent is selected from the group consisting of:
  - 2', 3'-O-isopropylideneadenosin-5'-ylphosphonomethylenephosphonate,
  - 2', 3'-O-isopropylideneinosin-5'-ylphosphonomethylenephosphonate,
  - 2', 3'-O-isopropylideneguanosin-5'-ylphosphonomethylenephosphonate,
  - 2', 3'-O-isopropylideneuridin-5'-ylphosphonomethylenephosphonate,
  - 2', 3'-O-isopropylideneцитidine-5'-ylphosphonomethylenephosphonate,
  - 3'-O-(tetrahydropyranyl) thymidin-5'-ylphosphonomethylenephosphonate,
  - 2', 3'-O-isopropylidenetiazofurin-5'-ylphosphonomethylenephosphonate,
  - 2', 3'-O-isopropylidene-3-ribofuranosylbenzamid-5'-ylphosphono-methylenephosphonate,
  - 2', 3'-O-isopropylidene-Ψ-uridin-5'-ylphosphonomethylenephosphonate,
  - 2', 3'-O-isopropylidene-Ψ-isocytidin-5'-ylphosphonomethylenephosphonate,
  - 9-(2'-deoxy-2'-fluoro-3'-O-tetrahydropyranyl-β-D-arabinofuranosyl) adenine-5-ylphosphonomethylenephosphonate,
  - 9-(3'-deoxy-3'-fluoro-2'-O-tetrahydropyranyl β-D-xylofuranosyl) adenine-5-ylphosphonomethylenephosphonate,

2'-deoxy-2'-fluoro-3'-O-tetrahydropyranyladenosin-5-ylphosphono-methylenephosphonate,

3'-deoxy-3'-fluoro-2'-O-tetrahydropyranyladenosin-5-ylphosphono-methylenephosphonate,

2', 3'-O-isopropylidene-9-deazaadenosin-5'-ylphosphonomethylenephosphonate,

2', 3'-O-isopropylidene-9-deazainosin-5'-ylphosphonomethylenephosphonate,

2', 3'-O-isopropylidene-9-deazaguanosin-5'-ylphosphonomethylenephosphonate,

2', 3'-O-isopropylideneadenosin-5'-ylphosphonodifluoromethylenephosphonate,

2', 3'-O-isopropylideneinosin-5'-ylphosphonodifluoromethylenephosphonate,

2', 3'-O-isopropylideneguanosin-5'-ylphosphonodifluoromethylenephosphonate,

3'-O-(tetrahydropyranyl) thymidin- 5'-ylphosphonodifluoromethylene-phosphonate,

2', 3'-O-isopropylidenetiazofurin-5'-ylphosphonodifluoromethylenephosphonate,

2', 3'-O-isopropylidene-3-ribosylbenzamid-5'-ylphosphonodifluoromethylene-phosphonate,

2', 3'-O-isopropylidene- $\Psi$ -uridin-5'-ylphosphonodifluoromethylenephosphonate,

2', 3'-O-isopropylidene- $\Psi$ -isocytidin-5'-ylphosphonodifluoromethylene-phosphonate,

9-(2'-deoxy-2'-fluoro-3'-O-tetrahydropyranyl- $\beta$ -D-arabinofuranosyladenine-5-ylphosphonodifluoromethylenephosphonate,

9-(3'-deoxy-3'-fluoro-2'-O-tetrahydropyranyl- $\beta$ -D-xylofuranosyl) adenine-5-ylphosphonodifluoromethylenephosphonate,

2'-deoxy-2'-fluoro-3'-O-tetrahydropyranyl-adenosin-5-ylphosphonodifluoromethylenephosphonate,

3'-deoxy-3'-fluoro-2'-O-tetrahydropyranyl-adenosin-5-ylphosphonodifluoromethylenephosphonate,

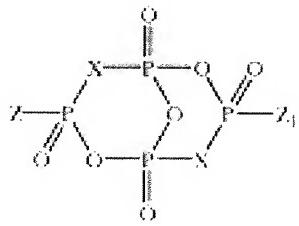
2', 3'-O-isopropylidene-9-deazaadenosin-5'-ylphosphonodifluoromethylene-phosphonate,

2', 3'-O-isopropylidene-9-deazainosin-5'-ylphosphonodifluoromethylene-phosphonate,

and

2', 3'-O-isopropylidene-9-deazaguanosin-5'-ylphosphonylphosphonodifluoromethylenephosphonate.

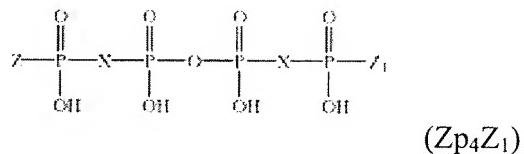
8. (Previously Presented) A method for the preparation of a compound having the following structure:



wherein

$Z$  and  $Z_1$  are the same or different and are alkyl, aralkyl, aryl, aminoalkyl, alkyloxy, aralkyloxy, alkylamino, aralkylamino, arylamino, alkylmercaptan, aralkylmercaptan, arylmercaptan, carbohydrate, nucleoside, steroid, or substituted glyceride; and

$X$  is methylene ( $-\text{CH}_2-$ ), mono- or di-halo methylene; which method comprises reacting a compound having the following structure:



wherein  $Z$ ,  $Z_1$  and  $X$  are as defined above, with a dehydrating agent.

9. (Original) The method of claim 8, wherein the starting material which is reacted with the dehydrating agent is selected from the group consisting of:

$\text{P}^1, \text{P}^4$ -di (adenosin-5'-yl) phosphonomethylenephosphonic  $\text{P}^2, \text{P}^3$ -anhydride,

$\text{P}^1, \text{P}^4$ -di [9- (2'-deoxy-2'-fluoro- $\beta$ -D-arabinofuranosyl) -adenine-5'-yl]

phosphonomethylenephosphonic  $\text{P}^2, \text{P}^3$ -anhydride,

$\text{P}^1, \text{P}^4$ -di [9- (3'-deoxy-3'-fluoro-  $\beta$  -D-xylofuranosyl) -adenine-5'-yl]

phosphonomethylenephosphonic  $\text{P}^2, \text{P}^3$ -anhydride,

$\text{P}^1, \text{P}^4$ -di (2'-deoxy-2'-fluoroadenosin-5'-yl) phosphonomethylenephosphonic  $\text{P}^2, \text{P}^3$ -anhydride,

$\text{P}^1, \text{P}^4$ -di (3'-deoxy-3'-fluoroadenosin-5'-yl) phosphonomethylenephosphonic  $\text{P}^2, \text{P}^3$ -anhydride,

$\text{P}^1, \text{P}^4$ -di (inosin-5'-yl) phosphonomethylenephosphonic  $\text{P}^2, \text{P}^3$ -anhydride,

$\text{P}^1, \text{P}^4$ -di (guanosin- n-5'-yl) phosphonomethylenephosphonic  $\text{P}^2, \text{P}^3$ -anhydride,

$\text{P}^1, \text{P}^4$ -di (uridin-5'-yl) phosphonomethylenephosphonic  $\text{P}^2, \text{P}^3$ -anhydride,

$P^1, P^4$ -di ( $N^4$ -acetylcytidin-5'-yl) phosphonomethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (thymidin-5'-yl) phosphonomethylenephosphonic  $P^2, P^3$ -anhydride,  
 $P^1, P^4$ -di (tiazifurin-5'-yl) phosphonomethylenephosphonic  $P^2, P^3$ -anhydride,  
 $P^1, P^4$ -di (3-ribosyl- benzamid-5'-yl) phosphonomethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di ( $\Psi$ -uridin-5'-yl) phosphonomethylenephosphonic  $P^2, P^3$ -anhydride,  
 $P^1, P^4$ -di ( $\Psi$ -isocytidin-5'-yl) phosphonomethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (9-deazaadenosin-5'-yl) phosphonomethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (9-deazainosin-5'-yl) phosphonomethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (9-deazaguanosin-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (adenosin-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (inosin-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (guanosin-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (thymidin-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (tiazofurin-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (3-ribosylbenzamid-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di ( $\Psi$ -uridin-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di ( $\Psi$ -isocytidin-5'-yl) phosphonodifluoromethylenephosphonic  
 $P^2, P^3$ -anhydride,

$P^1, P^4$ -di (9-deazaadenosin-5'-yl) phosphonodifluoromethylenephosphonic

- P<sup>2</sup>, P<sup>3</sup>-anhydride,  
P<sup>1</sup>, P<sup>4</sup>-di (9-deazainosin-5'-yl) phosphonodifluoromethylenephosphonic  
P<sup>2</sup>, P<sup>3</sup>-anhydride, and  
P<sup>1</sup>, P<sup>4</sup>-di (9-deazaguanosin-5'-yl) phosphonodifluoromethylenephosphonic  
P<sup>2</sup>, P<sup>3</sup>-anhydride.
10. - 26. (Cancelled)
27. (New) The method of claim 4, additionally comprising reacting the product compound of claim 4 with a nucleophilic agent.
28. (New) The method of claim 27, wherein the nucleophilic agent is a compound comprising an -OH, -SH, -NH<sub>2</sub>, or -NH moiety.
29. (New) The method of claim 27, wherein the nucleophilic agent is aralkyl, aryl, aminoalkyl, alkyloxy, aralkyloxy, alkylamino, aralkylamino, arylamino, alkylmercaptan, aralkylmercaptan, or arylmercaptan, carbohydrate, nucleoside, a mycophenolic acid residue or derivative, steroid, or substituted glyceride;
30. (New) The method of claim 27, wherein the nucleophilic agent is water.
31. (New) The method of claim 8, additionally comprising reacting the product compound of claim 8 with a nucleophilic agent.
32. (New) The method of claim 31, wherein the nucleophilic agent is a compound comprising an -OH, -SH, -NH<sub>2</sub>, or -NH moiety.
33. (New) The method of claim 31, wherein the nucleophilic agent is water, alkyl, aralkyl, aryl, aminoalkyl, alkyloxy, aralkyloxy, alkylamino, aralkylamino, arylamino, alkylmercaptan, aralkylmercaptan, or arylmercaptan, carbohydrate, nucleoside, a mycophenolic acid residue or derivative, steroid, or substituted glyceride;

34. (New) The method of claim 31, wherein the nucleophilic agent is water.